RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: _10/677,977A_

Source: _1FW16_

Date Processed by STIC: _9/30/05_

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.2.2 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses.

1. EFS-Bio (**<http://www.uspto.gov/ebc/efs/downloads/documents.htm>** , **EFS Submission User Manual** - ePAVE)
2. **U.S. Postal Service:** Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. **Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):** U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

Raw Sequence Listing Error Summary

| ERROR DETECTED | SUGGESTED CORRECTION | SERIAL NUMBER: 10/677,977A |

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1_____Wrapped Nucleics
Wrapped Aminos

The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to 3. this will prevent "wrapping."

2_____Invalid Line Length

The rules require that a line **not exceed 72 characters** in length. This includes white spaces.

3_____Misaligned Amino
Numbering

The numbering under each 5th amino acid is misaligned. **Do not use tab codes between numbers:** use **space characters**, instead.

4_____Non-ASCII

The submitted file was **not saved in ASCII(DOS) text, as required** by the Sequence Rules. **Please ensure your subsequent submission is saved in ASCII text.**

5_____Variable Length

Sequence(s)_____contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6_____PatentIn 2.0
"bug"

A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**

7_____Skipped Sequences
(OLD RULES)

Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i)   SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.

8_____Skipped Sequences
(NEW RULES)

Sequence(s) _____ missing. **If intentional**, please insert the following lines for **each** skipped sequence.
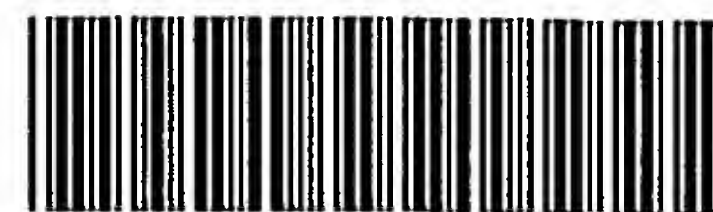<210> sequence id number
<400> sequence id number
000

9_____Use of n's or Xaa's
(NEW RULES)

Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10_____Invalid <213>
Response

Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is **required** when <213> response is Unknown or is Artificial Sequence

11_____Use of <220>

Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32)   (Sec. 1.823 of Sequence Rules)

12_____PatentIn 2.0
"bug"

Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13_____Misuse of n/Xaa

"n" can only represent a single <u>nucleotide</u>; "Xaa" can only represent a single <u>amino acid</u>

RAW SEQUENCE LISTING   DATE: 09/30/2005
PATENT APPLICATION: **US/10/677,977A**   TIME: 12:09:27

     Input Set : **A:\25840-501.txt**
     Output Set: **N:\CRF4\09302005\J677977A.raw**

```
 3 <110> APPLICANT: Nguyen, Jack
 4         Thanos, Chris
 5         Waugh Ruggles, Sandra
 6         Craik, Charles S.
 8 <120> TITLE OF INVENTION: METHODS OF GENERATING AND SCREENING FOR PROTEASES WITH
ALTERED
 9       SPECIFICITY
11 <130> FILE REFERENCE: 25840-501
13 <140> CURRENT APPLICATION NUMBER: 10/677,977A
14 <141> CURRENT FILING DATE: 2003-10-02
16 <150> PRIOR APPLICATION NUMBER: 60/425,388
17 <151> PRIOR FILING DATE: 2002-10-02
19 <160> NUMBER OF SEQ ID NOS: 20
21 <170> SOFTWARE: PatentIn version 3.3
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 277
25 <212> TYPE: PRT
26 <213> ORGANISM: Homo sapiens
28 <400> SEQUENCE: 1
30 Met Glu Asn Thr Glu Asn Ser Val Asp Ser Lys Ser Ile Lys Asn Leu
31 1               5                   10                  15
34 Glu Pro Lys Ile Ile His Gly Ser Glu Ser Met Asp Ser Gly Ile Ser
35               20                  25                  30
38 Leu Asp Asn Ser Tyr Lys Met Asp Tyr Pro Glu Met Gly Leu Cys Ile
39               35                  40                  45
42 Ile Ile Asn Asn Lys Asn Phe His Lys Ser Thr Gly Met Thr Ser Arg
43           50                  55                  60
46 Ser Gly Thr Asp Val Asp Ala Ala Asn Leu Arg Glu Thr Phe Arg Asn
47 65                  70                  75                  80
50 Leu Lys Tyr Glu Val Arg Asn Lys Asn Asp Leu Thr Arg Glu Glu Ile
51               85                  90                  95
54 Val Glu Leu Met Arg Asp Val Ser Lys Glu Asp His Ser Lys Arg Ser
55               100                 105                 110
58 Ser Phe Val Cys Val Leu Leu Ser His Gly Glu Glu Gly Ile Ile Phe
59               115                 120                 125
62 Gly Thr Asn Gly Pro Val Asp Leu Lys Lys Ile Thr Asn Phe Phe Arg
63           130                 135                 140
66 Gly Asp Arg Cys Arg Ser Leu Thr Gly Lys Pro Lys Leu Phe Ile Ile
67 145                 150                 155                 160
70 Gln Ala Cys Arg Gly Thr Glu Leu Asp Cys Gly Ile Glu Thr Asp Ser
71               165                 170                 175
74 Gly Val Asp Asp Asp Met Ala Cys His Lys Ile Pro Val Asp Ala Asp
75               180                 185                 190
78 Phe Leu Tyr Ala Tyr Ser Thr Ala Pro Gly Tyr Tyr Ser Trp Arg Asn
```

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Output Set: N:\CRF4\09302005\J677977A.raw

```
79          195              200              205
82 Ser Lys Asp Gly Ser Trp Phe Ile Gln Ser Leu Cys Ala Met Leu Lys
83      210              215              220
86 Gln Tyr Ala Asp Lys Leu Glu Phe Met His Ile Leu Thr Arg Val Asn
87 225              230              235              240
90 Arg Lys Val Ala Thr Glu Phe Glu Ser Phe Ser Phe Asp Ala Thr Phe
91              245              250              255
94 His Ala Lys Lys Gln Ile Pro Cys Ile Val Ser Met Leu Thr Lys Glu
95      260              265              270
98 Leu Tyr Phe Tyr His
99      275
102 <210> SEQ ID NO: 2
103 <211> LENGTH: 6
104 <212> TYPE: PRT
105 <213> ORGANISM: Homo sapiens
107 <400> SEQUENCE: 2
109 Phe Ser Phe Asp Ala Thr
110 1              5
113 <210> SEQ ID NO: 3
114 <211> LENGTH: 42
115 <212> TYPE: DNA
116 <213> ORGANISM: Artificial Sequence
118 <220> FEATURE:
119 <223> OTHER INFORMATION: Granzyme B Mutation Forward Primer
121 <400> SEQUENCE: 3
122 ccagcgtata attctaagac agcctccaat gacatcatgc tg                    42
125 <210> SEQ ID NO: 4
126 <211> LENGTH: 6
127 <212> TYPE: PRT
128 <213> ORGANISM: Homo sapiens
130 <400> SEQUENCE: 4
132 Ile Glu Thr Asp Ser Gly
133 1              5
136 <210> SEQ ID NO: 5
137 <211> LENGTH: 42
138 <212> TYPE: DNA
139 <213> ORGANISM: Artificial Sequence
141 <220> FEATURE:
142 <223> OTHER INFORMATION: Granzyme B Mutation Reverse Primer
144 <400> SEQUENCE: 5
145 cagcatgatg tcattggagg ctgtcttaga attatacgct gg                    42
148 <210> SEQ ID NO: 6
149 <211> LENGTH: 6
150 <212> TYPE: PRT
151 <213> ORGANISM: Homo sapiens
154 <220> FEATURE:
155 <221> NAME/KEY: Variant
156 <222> LOCATION: (1)..(1)
157 <223> OTHER INFORMATION: Wherein Xaa is an N-acetyl group.
```

Xaa can only represent a single amino acid, nothing else

(see item 13 on Error Summary Sheet)

```
159 <220> FEATURE:                              same error
160 <221> NAME/KEY: Variant
161 <222> LOCATION: (6)..(6)
162 <223> OTHER INFORMATION: Wherein Xaa is a 7-amino-4-methylcoumarin group.
164 <400> SEQUENCE: 6
166 Xaa Ile Glu Pro Asp Xaa
167 1                   5
170 <210> SEQ ID NO: 7
171 <211> LENGTH: 4
172 <212> TYPE: PRT
173 <213> ORGANISM: Homo sapiens
175 <400> SEQUENCE: 7
177 Ala Glu Ala Lys
178 1
181 <210> SEQ ID NO: 8
182 <211> LENGTH: 4
183 <212> TYPE: PRT
184 <213> ORGANISM: Homo sapiens
186 <400> SEQUENCE: 8
188 Glu Asn Val Lys
189 1
192 <210> SEQ ID NO: 9
193 <211> LENGTH: 4
194 <212> TYPE: PRT
195 <213> ORGANISM: Homo sapiens
197 <400> SEQUENCE: 9
199 Gly Thr Glu Asp
200 1
203 <210> SEQ ID NO: 10
204 <211> LENGTH: 4
205 <212> TYPE: PRT
206 <213> ORGANISM: Homo sapiens
208 <400> SEQUENCE: 10
210 Ser Pro Thr Arg
211 1
214 <210> SEQ ID NO: 11
215 <211> LENGTH: 4
216 <212> TYPE: PRT
217 <213> ORGANISM: Homo sapiens
219 <400> SEQUENCE: 11
221 Val Ser Thr Arg
222 1
225 <210> SEQ ID NO: 12
226 <211> LENGTH: 4
227 <212> TYPE: PRT
228 <213> ORGANISM: Homo sapiens
230 <400> SEQUENCE: 12
232 Ser Thr Ser Phe
233 1
```

W--> 166 (circled: Xaa) Ile Glu Pro Asp (circled: Xaa)

RAW SEQUENCE LISTING   DATE: 09/30/2005
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Input Set : **A:\25840-501.txt**
Output Set: **N:\CRF4\09302005\J677977A.raw**

```
236 <210> SEQ ID NO: 13
237 <211> LENGTH: 4
238 <212> TYPE: PRT
239 <213> ORGANISM: Homo sapiens
241 <400> SEQUENCE: 13
243 Lys Phe Pro Asp
244 1
247 <210> SEQ ID NO: 14
248 <211> LENGTH: 4
249 <212> TYPE: PRT
250 <213> ORGANISM: Homo sapiens
252 <400> SEQUENCE: 14
254 Ala Glu Gln Arg
255 1
258 <210> SEQ ID NO: 15
259 <211> LENGTH: 4
260 <212> TYPE: PRT
261 <213> ORGANISM: Homo sapiens
263 <400> SEQUENCE: 15
265 Lys Tyr Ala Asp
266 1
269 <210> SEQ ID NO: 16
270 <211> LENGTH: 4
271 <212> TYPE: PRT
272 <213> ORGANISM: Homo sapiens
274 <400> SEQUENCE: 16
276 Asn Gly Pro Lys
277 1
280 <210> SEQ ID NO: 17
281 <211> LENGTH: 4
282 <212> TYPE: PRT
283 <213> ORGANISM: Homo sapiens
285 <400> SEQUENCE: 17
287 Ser Ser Ala Tyr
288 1
291 <210> SEQ ID NO: 18
292 <211> LENGTH: 4
293 <212> TYPE: PRT
294 <213> ORGANISM: Homo sapiens
296 <400> SEQUENCE: 18
298 Gly Thr Ser Asp
299 1
302 <210> SEQ ID NO: 19
303 <211> LENGTH: 4
304 <212> TYPE: PRT
305 <213> ORGANISM: Homo sapiens
307 <400> SEQUENCE: 19
309 Ala Gln Glu Lys
310 1
```

```
313 <210> SEQ ID NO: 20
314 <211> LENGTH: 4
315 <212> TYPE: PRT
316 <213> ORGANISM: Homo sapiens
318 <400> SEQUENCE: 20
320 Arg Ile Asp Tyr
321 1
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 09/30/2005
PATENT APPLICATION: US/10/677,977A   TIME: 12:09:28

Input Set : A:\25840-501.txt
Output Set: N:\CRF4\09302005\J677977A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; Xaa Pos. 1,6

VERIFICATION SUMMARY DATE: 09/30/2005
PATENT APPLICATION: **US/10/677,977A** TIME: 12:09:28

Input Set : **A:\25840-501.txt**
Output Set: **N:\CRF4\09302005\J677977A.raw**

L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0